

TAMEST: COVID-19 Situation Update

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UT COVID-19 Modeling Consortium

July 14, 2020



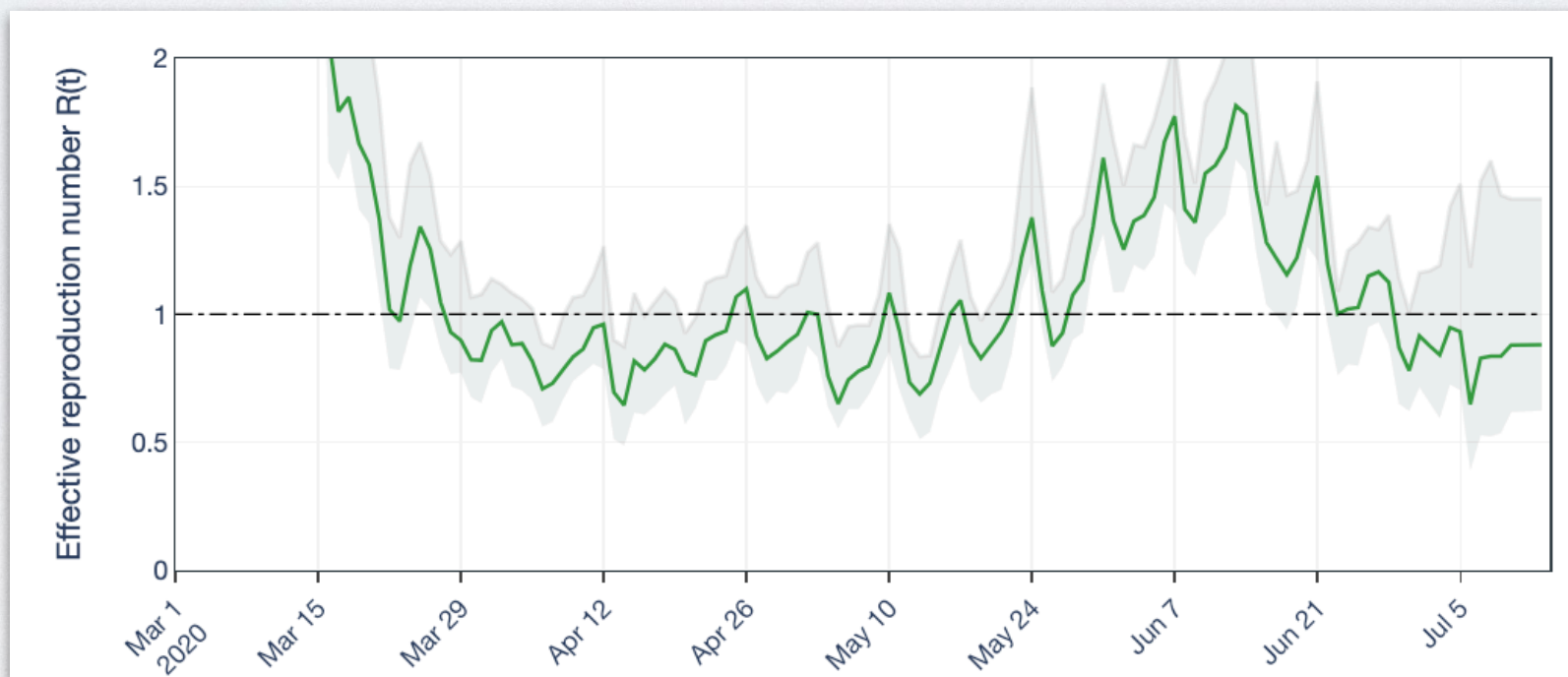
Austin: COVID-19 Spread

Reproduction
Number $R(t)$
0.88

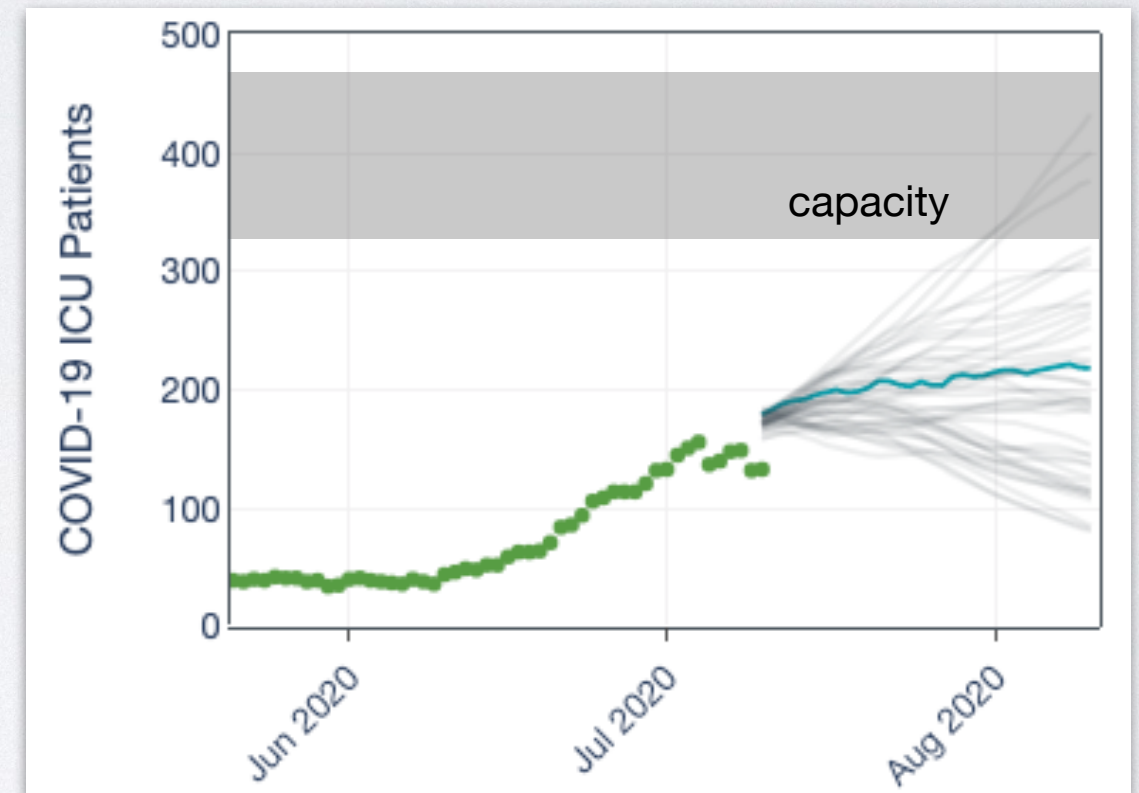
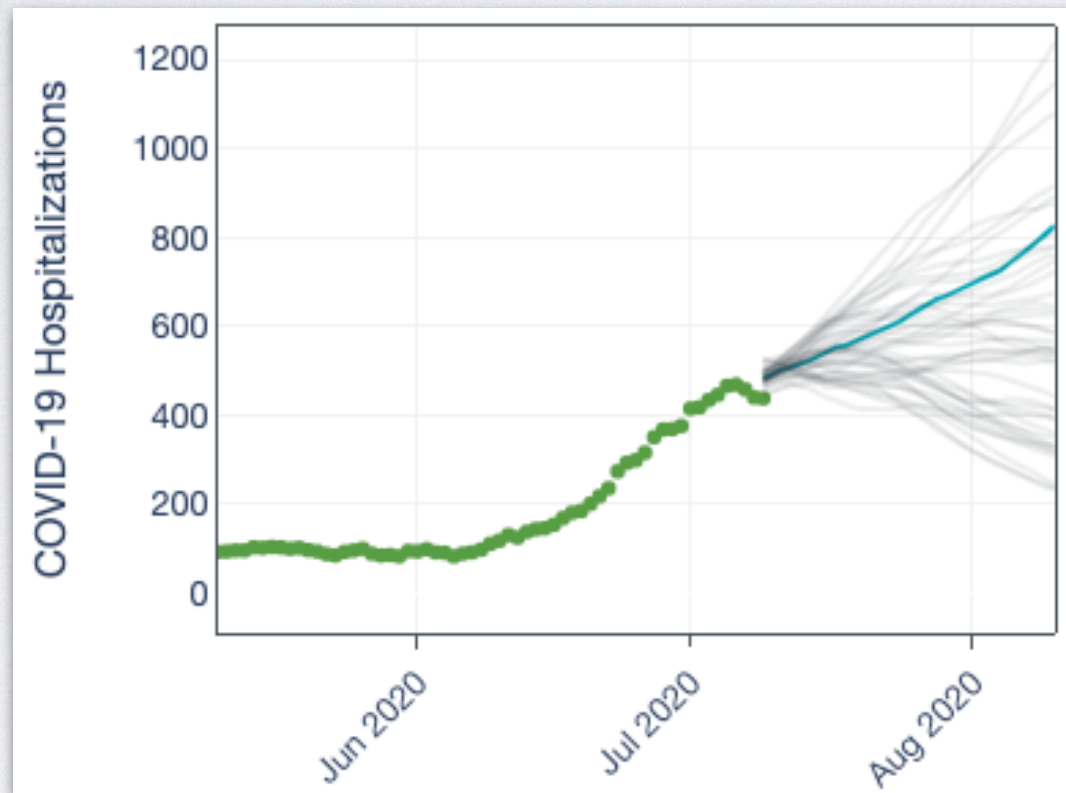
Probability epidemic
is growing
22%

Doubling Time
44 Days

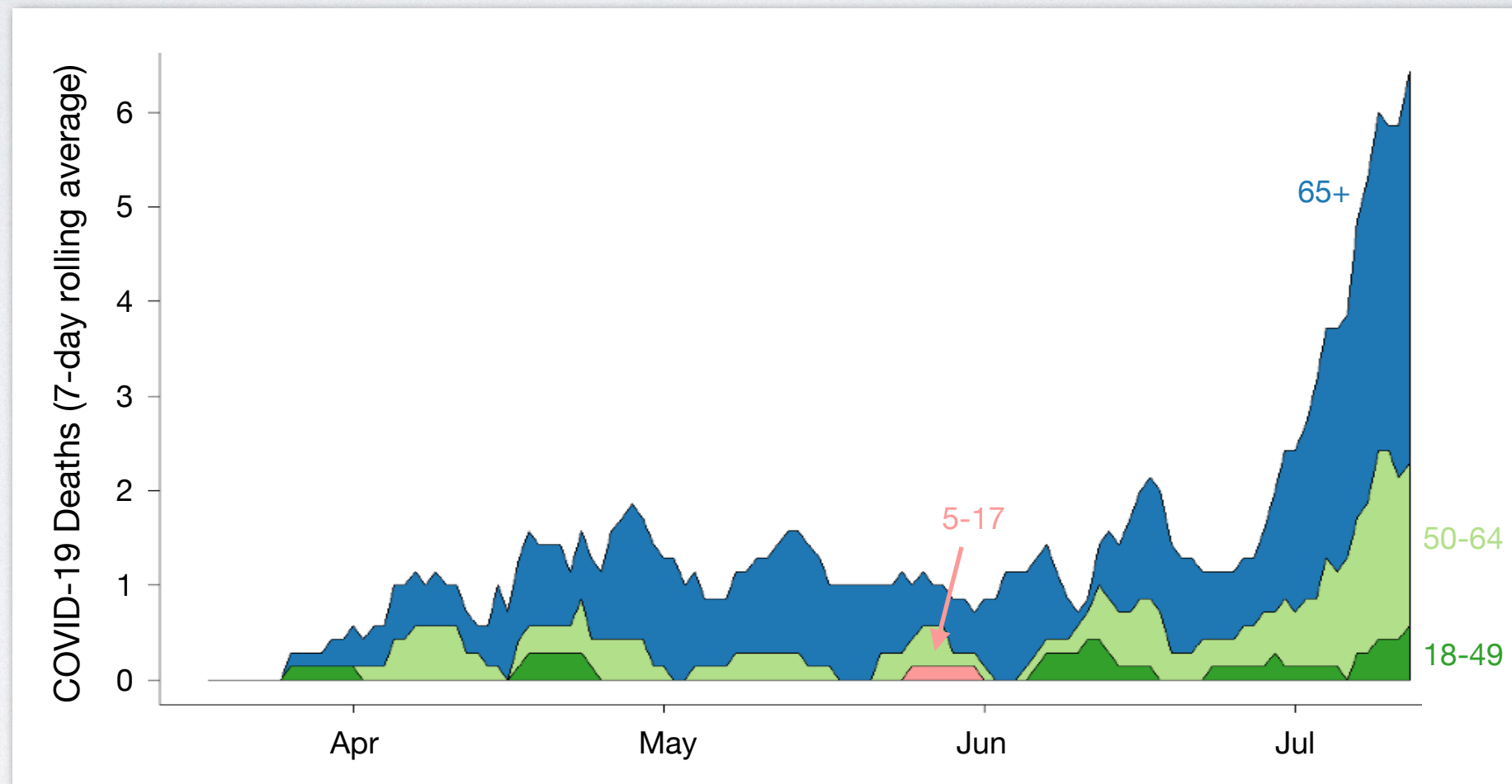
14-day Change
**12% more
infections**



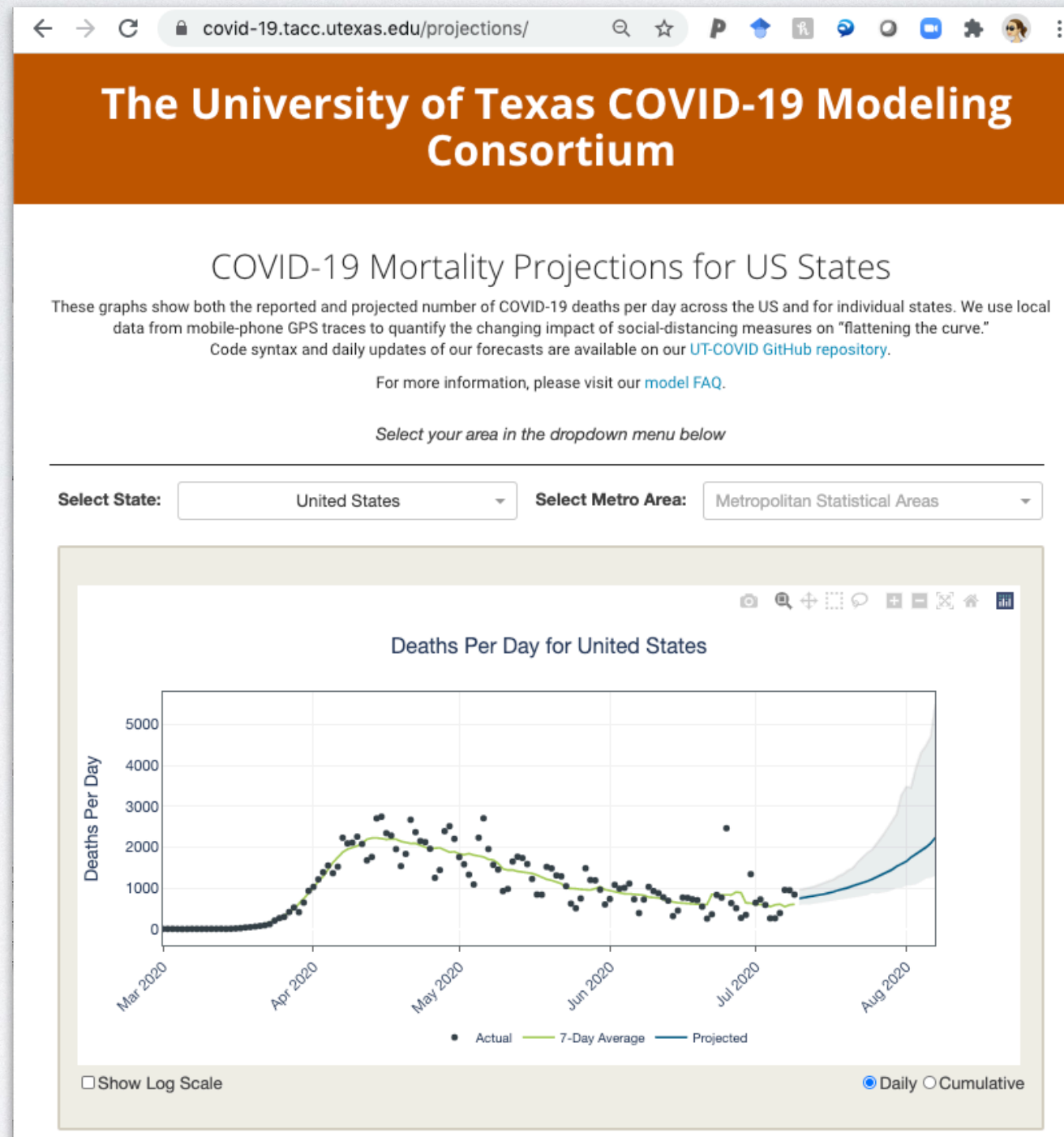
Austin: Healthcare Projections



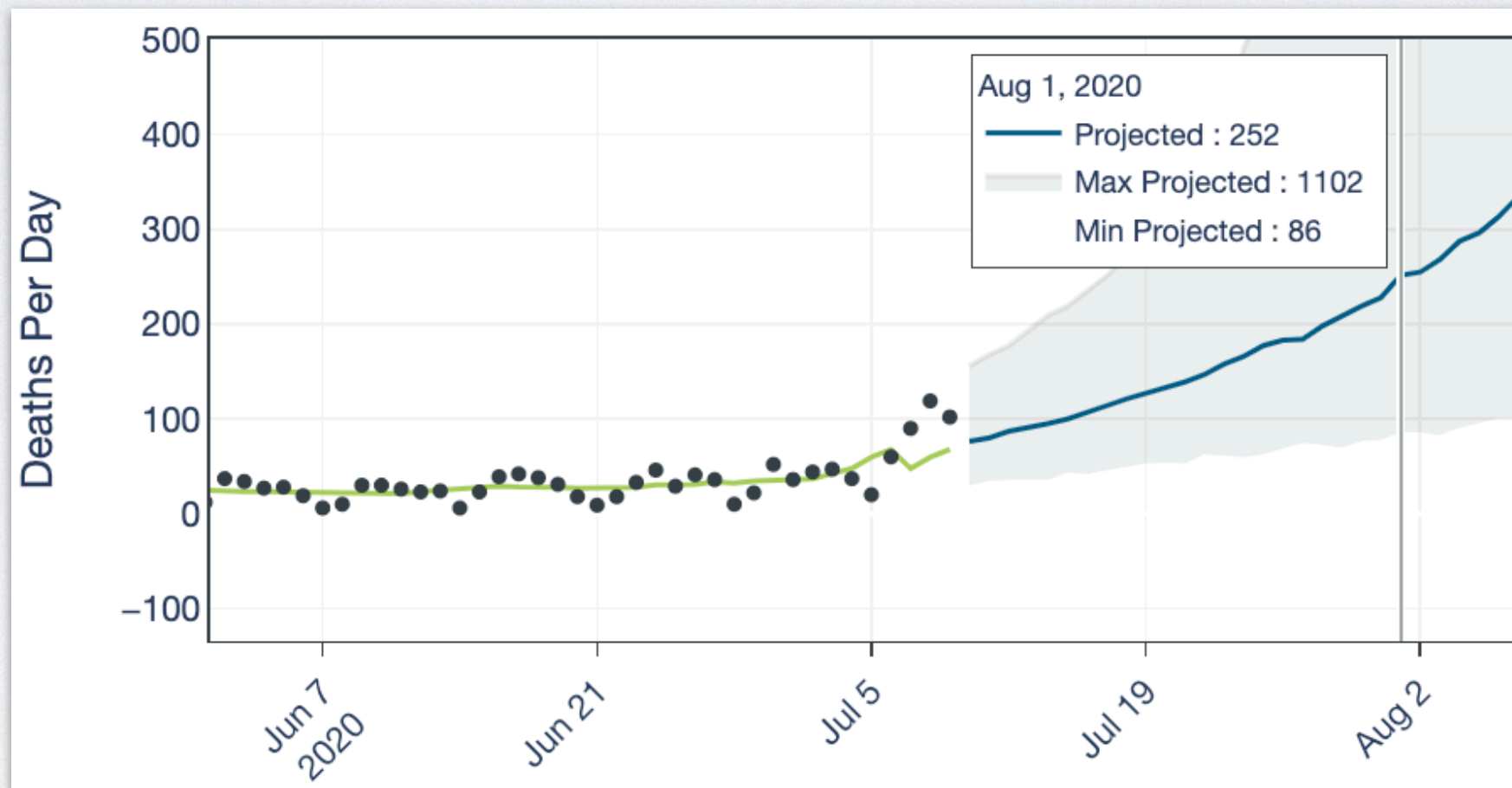
Austin: COVID-19 Mortality



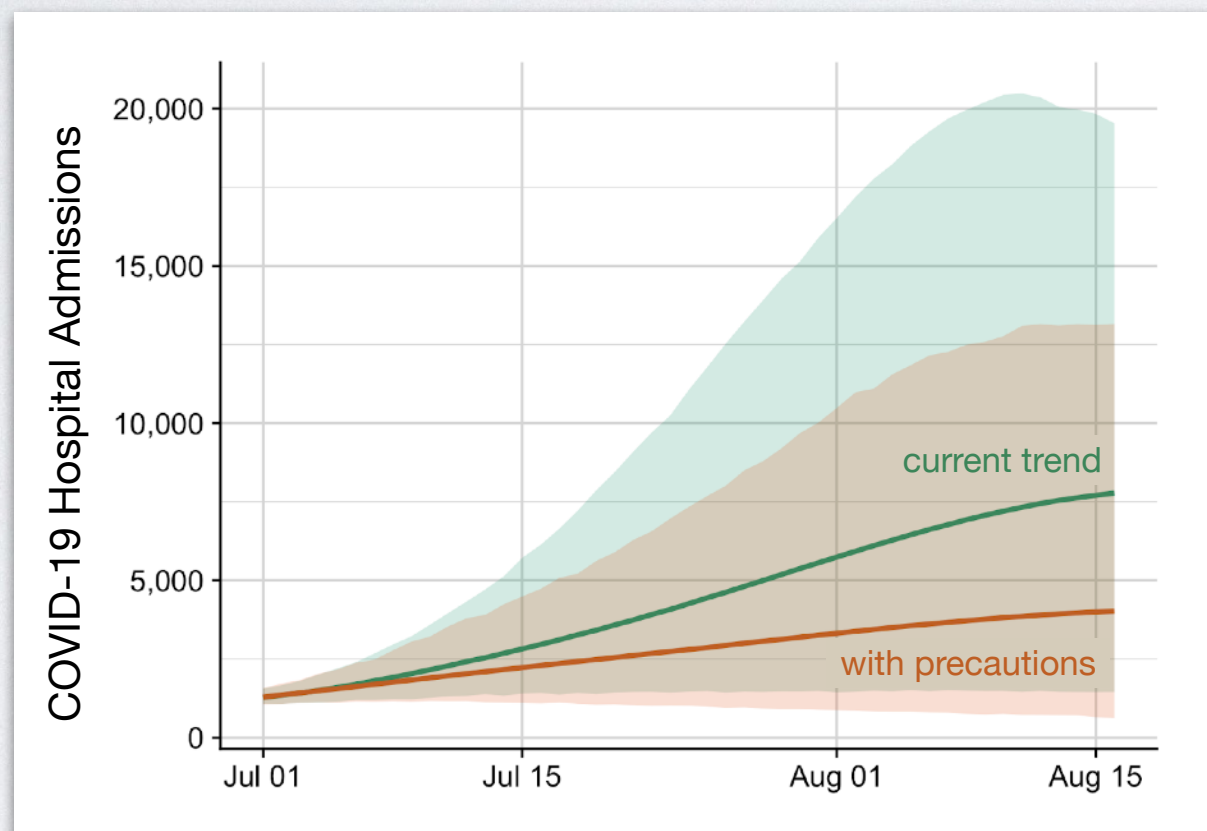
COVID-19 Mortality Forecasts



Texas: COVID-19 Mortality

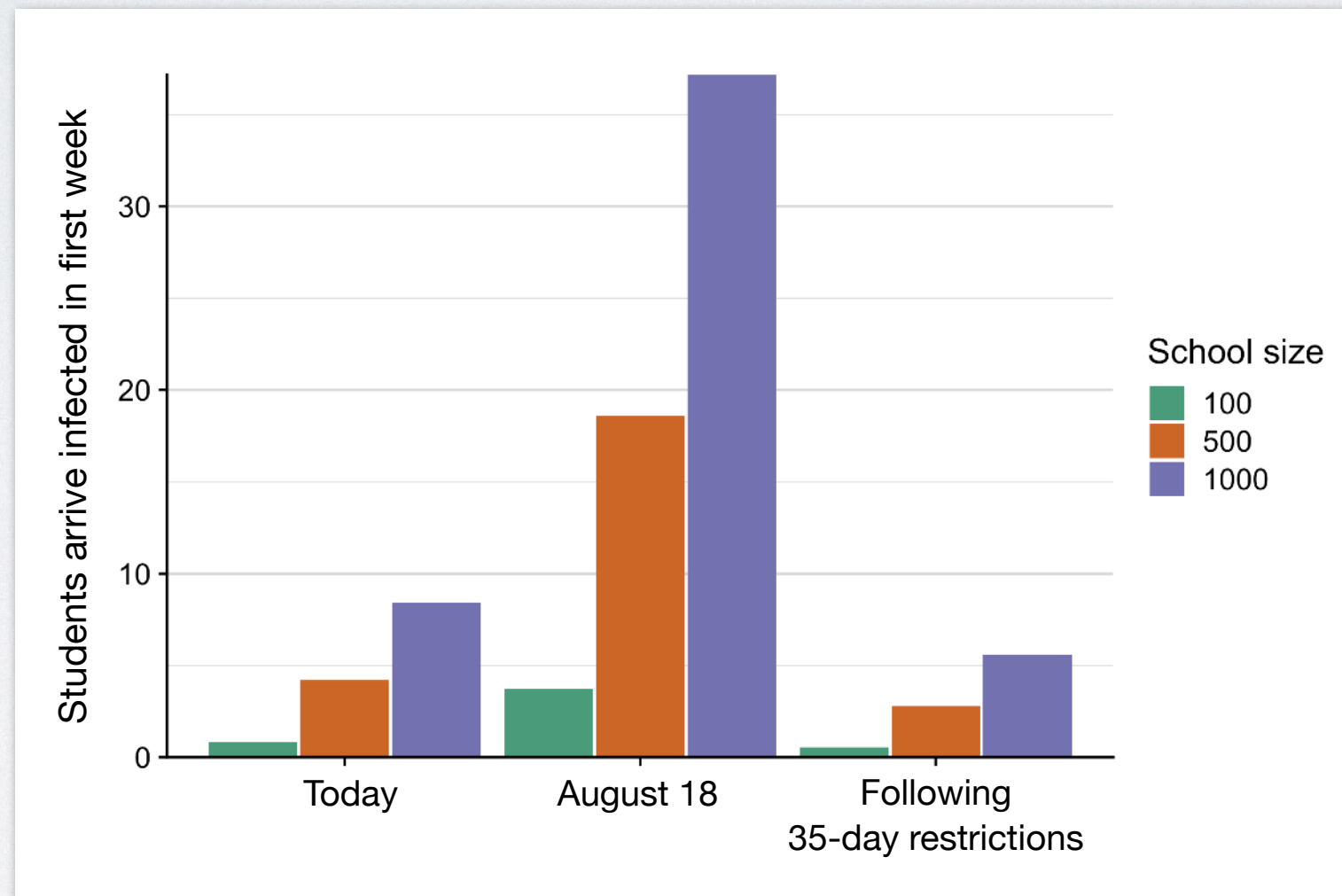


Texas: Slowing Spread



Immediate precautions – wearing face masks, maintaining physical space, and staying home if symptomatic – may prevent between 20,000 and 130,000 COVID-19 hospitalizations from July 1 to August 17, 2020.

Austin: Opening Schools



Take aways

COVID-19 is threatening the safety and integrity of Texas' healthcare systems, and may soon overwhelm ICU capacity in many cities.

In Austin, COVID-19 transmission has been slowing since early June. However, COVID-19 could still exceed local ICU capacity by early August.

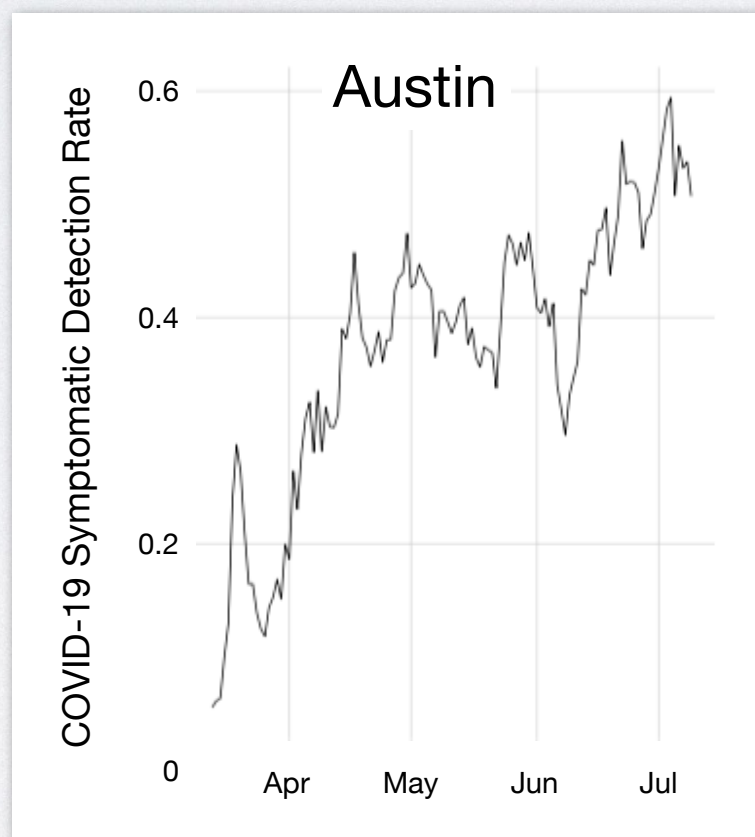
To avert unmanageable COVID-19 healthcare demands, Texas should do more to slow the spread of the virus and to expand safe ICU capacity.

The more we curb transmission, the more feasible opening schools will be.

Better data and collaborations would improve real-time situational awareness and accurate forecasting.

Questions

At this point, how many actual infections do they think each positive test represents? i.e., if we get 10,000 positive tests back in a day, is there an estimate for what the actual number of infections would be?



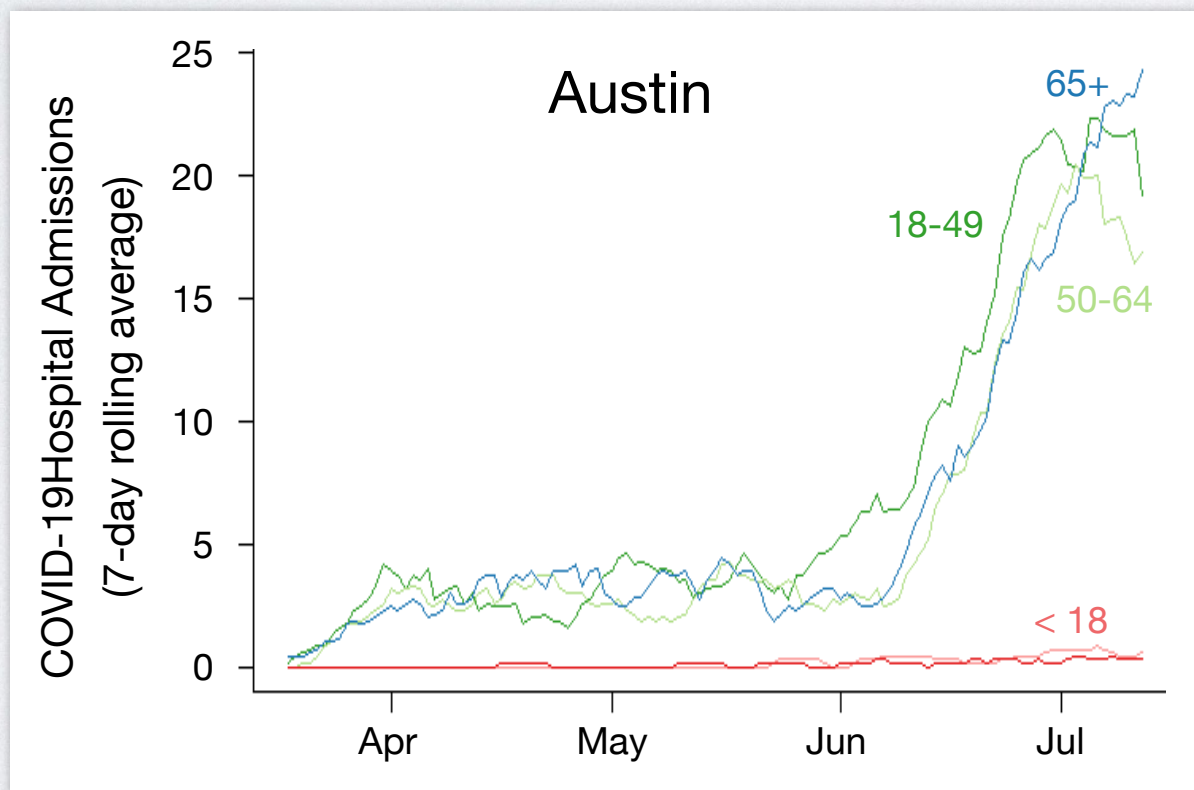
For Austin, multiply confirmed cases by ...

two to approximate symptomatic cases

three to approximate all cases

Questions

What do we need to know about the population that is currently being hospitalized in Texas? How is treatment going for those people, how long do they stay hospitalized/in ICUs, are they seeing better results that we saw in March and April?



Age 65: Proportion requiring ICU has dropped from 52% in mid-April to 39% in mid-June. Survival in the ICU has simultaneously increased from 81% to 84%.

Age 35: Proportion requiring ICU has dropped from 35% in mid-April to 26% in mid-June. Survival in the ICU has remained around 97%.

Length of ICU stay has remained around 13 days.

Funding and team

US Centers for Disease Control and Prevention
National Institutes of Health
National Science Foundation
Texas Advanced Computing Center
Tito's Handmade Vodka

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